

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-892
Relating to Certification of New Motor Vehicles

GENERAL MOTORS CORPORATION

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That 2000 model-year General Motors Corporation exhaust emission control systems are certified as described below for passenger cars:

Emission Standard Category: Ultra-Low-Emission Vehicle (ULEV)

Fuel Type: Gasoline

Engine Family: YGMXV03.8901 Displacement: 3.8 Liters (231 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

Sequential Multiport Fuel Injection
Three Way Catalytic Converter
Heated Oxygen Sensors (two)
Exhaust Gas Recirculation
Secondary Air Injection

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The ULEV certification exhaust emission standards for this engine family in grams per mile are:

<u>Miles</u>	<u>Non-Methane Organic Gas</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Formaldehyde</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.040	1.7	0.2	0.008	10.0
100,000	0.055	2.1	0.3	0.011	n/a

Reactivity Adjustment Factor (RAF) for NMOG Mass Emission: 0.94

The certification exhaust emission values set forth for non-methane organic gas (NMOG) reflect application of a 0.94 RAF for 2000 model-year ULEVs. The ULEV certification exhaust emission values for this engine family in grams per mile are:

<u>Miles</u>	<u>Non-Methane Organic Gas</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Formaldehyde</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.030	0.6	0.1	0.001	2.1
100,000	0.036	0.6	0.1	0.001	n/a

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the aforementioned exhaust emission standards based on its submitted plan to comply with the fleet average NMOG exhaust mass emission requirements as set forth in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That under the submitted NMOG fleet average compliance plan, if the manufacturer incurs a NMOG debit for the aforementioned model year based on the projected NMOG fleet average exceeding the value required by the above-referenced standards and test procedures, all incurred NMOG debits by the manufacturer shall be equalized as required by the standards and test procedures.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the running loss and useful life standards applicable to 1995 and subsequent model-year vehicles in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles," and the listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the "California Refueling Emission Standards and Test Procedures for 1998 and Subsequent Model Motor Vehicles," Title 13, California Code of Regulations, Section 1978, and the listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" for the aforementioned model year (Title 13, California Code of Regulations, Section 2235).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high-altitude requirements and highway emission standards, and with the California Inspection and Maintenance emission standards in place at the time of certification, as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That the vehicle manufacturer has demonstrated compliance with the exhaust emission standards at 50 degrees Fahrenheit as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That the listed models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) for the aforementioned model year.

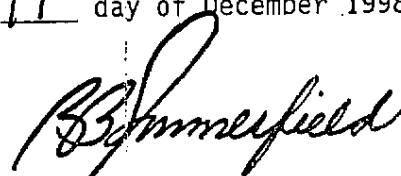
BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Emission Control and Smog Index Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 17th day of December 1998.

A handwritten signature in dark ink, appearing to read "R. B. Summerfield", is written over the printed name and title.

R. B. Summerfield, Chief
Mobile Source Operations Division

2000 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: YGMXV03.8901 EVAP FAMILY: YGMXR0133910
 ALL ENGINE CODES IN ENGINE FAMILY: CA (X) 49S () 50S () AB965 () ORVR: YES (X) NO ()
 EXH STD: CA TIER-1 () TLEV () LEV () ULEV (X) SULEV (); U.S. EPA TIER-1 ()
 EVAP STD: USEFUL LIFE (X)
 VEH CLASS(ES): PC (X) LDT1 () LDT2 () MDV1 () MDV2 () MDV3 () MDV4 () MDV5 ()
 SINGLE CERT STANDARD FOR MULTI-CLASS ENGINE FAMILY: NA
 FUEL TYPE(S): DEDICATED () GASOLINE (X); EXH EMIS TEST FUEL(S): INDOLINE () CBG (X)
 EVAP EMIS TEST PROCEDURE: CALIF () FED (X)
 SERVICE ACCUMULATION: STD AMA (X) MFR ADP (X); NMOG TEST PROCEDURE: NA () EQUIV (X)
 R/L TEST PROCEDURE: PT SOURCE (X)
 ENGINE CONFIGURATION: I4 () V6 (X) V8 () DISPLACEMENT: 3.8 LITERS / 231 CU. IN.
 VALVES / CYLINDER: 2 (X) 4 () RATED HP: 205 @ 5200 RPM
 ENGINE LOCATION: FRONT (X) DRIVE: FWD (X) RWD () 4WD-FT () 4WD-PT ()
 EXHAUST EMISSION CONTROL SYSTEM: EGR-TWC-HO2S(2)-SFI - *AIR*
 RLHP / DPA VALUES: SECTION 08,13,02.00

ENGINE CODE & LETTER DERIVATIVES*1	LOC (C/F/NW)	VEH MODELS (SEE PAGE 1)	TRANS (M5,A4,ETC.)	EQUIV. TEST WEIGHT	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
51	C	2HX69 4HP69 4HR69	A4/21	3875	17096199	25314422, 25319582

*1 Base engine codes are the same as letter derivatives unless otherwise noted. Refer to PCM/VCM part number page for additional engine code letter derivative information.

CARLINE NAME	CARLINE CODE
PONTIAC BONNEVILLE	07045
BUICK LESABRE	01030

ISSUED: ML-YP029

REVISED:

 17-YGMXV03.8901-2
 (2000)

2000 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP.

ENGINE FAMILY: YGMXV03.8901

EVAP FAMILY: YGMXR0133910

<u>ENGINE CODE & LETTER DERIVATIVES*1</u>	<u>LOC (C/F/NW)</u>	<u>VEH MODELS (SEE PAGE 1)</u>	<u>TRANS (M5,A4,ETC.)</u>	<u>EQUIV. TEST WEIGHT</u>	<u>EGR SYSTEM PART NO.</u>	<u>CATALYTIC CONVERTER PART NO.</u>
52	C	2HZ69 2HX69 4HP69 4HR69	A4/22	3875	17096199	25314422, 25319582

*1 Base engine codes are the same as letter derivatives unless otherwise noted. Refer to PCM/VCM part number page for additional engine code letter derivative information.

CARLINE NAME
PONTIAC BONNEVILLE
BUICK LESABRE

CARLINE CODE
07045
01030

ISSUED: ML-YP029

REVISED: ML-XR047

17-YGMXV03.8901-3
(2000)

2000 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PCM AND CALIBRATION PART NUMBERS

MFR: GENERAL MOTORS CORP.

ENGINE FAMILY: YGMXV03.8901

EVAP FAMILY: YGMXR0133910

<u>ENGINE CODE</u>	<u>PCM/VCM PART NUMBER</u>	<u>ENGINE CALIB</u>	<u>OPER CALIB</u>	<u>TRANS CALIB</u>
51	16200870, 09357440	09354454	NA	NA
52		09354464		

ISSUED: ML-YP029

REVISED:

17-YGMXV03.8901-4
(2000)

(FOR CARB USE ONLY)

E.O. #A-6-892

2000 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: YGMXV03.8901 EVAP FAMILY: YGMXR0133910
 ALL ENGINE CODES IN ENGINE FAMILY: CA(X) 49S() 50S() AB965() ORVR: YES(X) NO()
 EXH STD: CA TIER-1() TLEV() LEV() ULEV(X) SULEV(); U.S. EPA TIER-1()
 EVAP STD: USEFUL LIFE(X)
 VEH CLASS(ES): PC(X) LDT1() LDT2() MDV1() MDV2() MDV3() MDV4() MDV5()
 SINGLE CERT STANDARD FOR MULTI-CLASS ENGINE FAMILY: NA
 FUEL TYPE(S): DEDICATED() GASOLINE(X); EXH EMIS TEST FUEL(S): INDOLINE() CBG(X)
 EVAP EMIS TEST PROCEDURE: CALIF() FED(X)
 SERVICE ACCUMULATION: STD AMA() MFR ADP(X); NMOG TEST PROCEDURE: NA() EQUIV(X)
 R/L TEST PROCEDURE: PT SOURCE(X)
 ENGINE CONFIGURATION: I4() V6(X) V8() DISPLACEMENT: 3.8 LITERS / 231 CU. IN.
 VALVES / CYLINDER: 2(X) 4() RATED HP: 205 @ 5200 RPM
 ENGINE LOCATION: FRONT(X) DRIVE: FWD(X) RWD() 4WD-FT() 4WD-PT()
 EXHAUST EMISSION CONTROL SYSTEM: EGR-TWC-HO2S(2)-SFI-AIR
 RLHP / DPA VALUES: SECTION 08.13.02.00

ENGINE CODE & LETTER DERIVATIVES*1	LOC (C/F/NW)	VEH MODELS (SEE PAGE 1)	TRANS (M5,A4,ETC.)	EQUIV. TEST WEIGHT	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
53	C	4CW69	A4/23	4000	17096199	25314422, 25319582

*1 Base engine codes are the same as letter derivatives unless otherwise noted. Refer to PCM/VCM part number page for additional engine code letter derivative information.

CARLINE NAME
BUICK PARK AVENUE

CARLINE CODE
01040

ISSUED: ML-YP029

REVISED: ML-YP038

17-YGMXV03.8901-6
(2000)

** TOTAL PAGE.010 **

(FOR CARB USE ONLY)

E.O. #A-6-892

2000 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: YGMXV03.8901 EVAP FAMILY: YGMXR0133910
 ALL ENGINE CODES IN ENGINE FAMILY: CA (X) 49S () 50S () AB965 () ORVR: YES (X) NO ()
 EXH STD: CA TIER-1 () TLEV () LEV () ULEV (X) SULEV () U.S. EPA TIER-1 ()
 EVAP STD: USEFUL LIFE (X)
 VEH CLASS(ES): PC (X) LDT1 () LDT2 () MDV1 () MDV2 () MDV3 () MDV4 () MDV5 ()
 SINGLE CERT STANDARD FOR MULTI-CLASS ENGINE FAMILY: NA
 FUEL TYPE(S): DEDICATED () GASOLINE (X); EXH EMIS TEST FUEL(S): INDOLINE () CBG (X)
 EVAP EMIS TEST PROCEDURE: CALIF () FED (X)
 SERVICE ACCUMULATION: STD AMA () MFR ADP (X); NMOG TEST PROCEDURE: NA () EQUIV (X)
 R/L TEST PROCEDURE: PT SOURCE (X)
 ENGINE CONFIGURATION: I4 () V6 (X) V8 () DISPLACEMENT: 3.8 LITERS / 231 CU. IN.
 VALVES / CYLINDER: 2 (X) 4 () RATED HP: 205 @ 5200 RPM
 ENGINE LOCATION: FRONT (X) DRIVE: FWD (X) RWD () 4WD-FT () 4WD-PT ()
 EXHAUST EMISSION CONTROL SYSTEM: EGR-TWC-HO2S(2)-SFI-AIR
 RLHP / DPA VALUES: SECTION 08.13.02.00

ENGINE CODE & LETTER DERIVATIVES*1	LOC (C/F/INW)	VEH MODELS (SEE PAGE 1)	TRANS (M5,A4,ETC.)	EQUIV. TEST WEIGHT	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
54	C	1WH19	A4/24	3750	17096199	24507880, 24507351
55		1WF19				

*1 Base engine codes are the same as letter derivatives unless otherwise noted. Refer to PCM/VCM part number page for additional engine code letter derivative information.

CARLINE NAME
CHEVROLET IMPALA

CARLINE CODE
03145

ISSUED: ML-YP029

REVISED: ML-YP038

17-YGMXV03.8901-6
(2000)

2000 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP.

ENGINE FAMILY: YGMXV03.8901

EVAP FAMILY: YGMXR0133910

<u>ENGINE CODE & LETTER DERIVATIVES*1</u>	<u>LOC (C/F/NW)</u>	<u>VEH MODELS (SEE PAGE 1)</u>	<u>TRANS (M5,A4,ETC.)</u>	<u>EQUIV. TEST WEIGHT</u>	<u>EGR SYSTEM PART NO.</u>	<u>CATALYTIC CONVERTER PART NO.</u>
56	C	1WF19	A4/25	3750	17096199	24507880, 24507351
57		1WX27				

*1 Base engine codes are the same as letter derivatives unless otherwise noted. Refer to PCM/VCM part number page for additional engine code letter derivative information.

CARLINE NAME
CHEVROLET IMPALA

CARLINE CODE
03145

ISSUED: ML-YP029

REVISED:

17-YGMXV03.8901-7
(2000)

2000 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PCM AND CALIBRATION PART NUMBERS

MFR: GENERAL MOTORS CORP.

ENGINE FAMILY: YGMXV03.8901

EVAP FAMILY: YGMXR0133910

<u>ENGINE CODE</u>	<u>PCM/VCM PART NUMBER</u>	<u>ENGINE CALIB</u>	<u>OPER CALIB</u>	<u>TRANS CALIB</u>
53	16200870, 09357440	09368954	NA	NA
54		09368954		
55		09363684		
56		09363664		
57		16242344		

ISSUED: ML-YP029

REVISED:

17-YGMXV03.8901-8
(2000)

(FOR CARB USE ONLY)

E.O. #A-6-892

2000 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: YGMXV03.8901 EVAP FAMILY: YGMXR0133918
ALL ENGINE CODES IN ENGINE FAMILY: CA (X) 49S () 50S () AB965 () ORVR: YES (X) NO ()
EXH STD: CATIER-1 () TLEV () LEV () ULEV (X) SULEV (): U.S. EPA TIER-1 ()
EVAP STD: USEFUL LIFE (X)
VEH CLASS(ES): PC (X) LDT1 () LDT2 () MDV1 () MDV2 () MDV3 () MDV4 () MDV5 ()
SINGLE CERT STANDARD FOR MULTI-CLASS ENGINE FAMILY: NA
FUEL TYPE(S): DEDICATED () GASOLINE (X); EXH EMIS TEST FUEL(S): INDOLINE () CBG (X)
EVAP EMIS TEST PROCEDURE: CALIF () FED (X)
SERVICE ACCUMULATION: STD AMA () MFR ADP (X); NMOG TEST PROCEDURE: NA () EQUIV (X)
R/L TEST PROCEDURE: PT SOURCE (X)
ENGINE CONFIGURATION: I4 () V6 (X) V8 () DISPLACEMENT: 3.8 LITERS / 231 CU. IN.
VALVES / CYLINDER: 2 (X) 4 () : RATED HP: 205 @ 5200 RPM
ENGINE LOCATION: FRONT (X) DRIVE: FWD (X) RWD () 4WD-FT () 4WD-PT ()
EXHAUST EMISSION CONTROL SYSTEM: EGR-TWC-HO2S(2)-SFI-AIR
RLHP / DPA VALUES: SECTION 08.13.02.00

ENGINE CODE & LETTER DERIVATIVES*1	LOC (C/F/NW)	VEH MODELS (SEE PAGE 1)	TRANS (M5, A4, ETC.)	EQUIV. TEST WEIGHT	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
58	C	2WP37 2WJ69	A4/25	3625 3750	17096199	24507880 (24507351)
59		2WP69				24507880 (24508351)
60		4WB69	A4/24			

*1 Base engine codes are the same as letter derivatives unless otherwise noted. Refer to PCM/VCM part number page for additional engine code letter derivative information.

CARLINE NAME
PONTIAC GRAND PRIX
BUICK REGAL

CARLINE CODE
07055
01022

ISSUED: ML-YP029

REVISED: ML-YP038

17-YGMXV03.8901-9
(2000)

2000 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PCM AND CALIBRATION PART NUMBERS

MFR: GENERAL MOTORS CORP.

ENGINE FAMILY: YGMXV03.8901

EVAP FAMILY: YGMXR0133918

<u>ENGINE CODE</u>	<u>PCM/VCM PART NUMBER</u>	<u>ENGINE CALIB</u>	<u>OPER CALIB</u>	<u>TRANS CALIB</u>
58	16200870, 09357440	16242454	NA	NA
59		16232234		
60		16255694		

ISSUED: ML-YP029

REVISED:

17-YGMXV03.8901-10
(2000)